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# Weekly Report
# 11/06/2019 – 17/06/2019

Last week, my focusing was on how to arrange a story because of the previous discussion with Junhua, he told me to focus on the narrative structure because the narrative structure can help to make a novel one.

The paper I think it has a useful idea is "What's Next?: Emergent Storytelling from Video Collections" [1]. This paper gives way for the ordering of a story. The most exciting function for me is about "edit-by-recommendation". That function lets the user put the scene of the story and then right-click to select the "What's Next?" scene. The next scenes user can select will collect from the videos and figures corpus by these criteria such as "Similar Characters", "Similar Emotions", "Similar Theme", "Following Dates", "Similar Location", "Similar Importance Level", "Continued Story Structure". This way guides the user to narrate the story more manageable. Anyway, users have to put the annotation of scenes to let the system provides a recommendation to the user in the production step.

So back to the paper that I mentioned to last week "Contextifier: Automatic Generation of Annotated Stock Visualizations" [2]. After I read the paper above [1], I think the stock data can matching with the news as an annotation like the [1] paper. Then I tried to collect news articles for, especially stock such as Apple Inc. There is an online data available in many stock news website. However, it cannot download as a dataset. So I think if we can find the dataset of each stock news, then we can match with the stock history data and then visualize as a story of the big event company as scoop news. By the way, this idea may not work because we don't have the news corpus for related stock.

Moreover, last week lab meeting, I interested in this paper "Narvis: Authoring Narrative Slideshows for Introducing Data Visualization Designs" [3] in terms of how to create a narrative sequence. The paper said about the relationships between visual units. If we have more than one visualization that needs to narrate, we can see them like the visual units that can have two types of relationships, such as independent and dependent. Then we can narrate it like a node-link view and sequence view. I kept this idea to match with my other ideas.

I move on to find the other idea of matching our theme idea as Data2Video. I found a survey paper named "Storytelling and Visualization: An Extended Survey" [4]. This paper developed dimensions which are common to storytelling in visualization based on the three questions about storytelling such as; who are the main subjects involved in storytelling for visualization (authoring tools and audience), how are stories told (narratives and transitions), why can we use storytelling for visualization (memorability and interpretation).

Their dimensions as follow;

- Authoring-Tools: Authorship addresses who creates the story and narrative.

- User-engagement: Engagement is about the audience and also concerns why we use storytelling.

- Narratives: Narrative concerns how an author tells a story.

- Transitions: Transitions are about how authors may tell the story.

- Memorability: Memorability addresses why authors present data in the form of a story.

- Interpretation: Data interpretation refers to the process of critiquing and determining the significance of important data and information

A dimension about "concerning why we use storytelling" makes me think back to my professional concept about the software engineering process. In my survey paper, I found many gaps in the software development process that has no visualization. I think about when I was a co-team leader of a software development group, and I take in charge to run them with the agile development process. One activity that we need to do is a retrospective meeting. The retrospective is just a name to describe the task we have to do in the meeting. We always have to focus about "What we did wrong or overschedule in the last sprint (development round/cycle about a weekly) ?" to take the lesson learns for improving our products for the next round. The problem I face is that we have no summary of the story of the event that occurred during the week. We have to get into the log issue, repository etc.  it takes for a long time to see the issues.

So I tried to find the repository dataset to try my above idea. I found a paper "The JIRA Repository Dataset: Understanding Social Aspects of Software Development" [5]. I think this idea is familiar with my professional background that creates a software repository visualization as a short video for a retrospective meeting to give summary information to the team to understand the event occurred during a sprint on the same page.

Next step I will discuss this idea with Junhua, I think it can implementable and new. That useful for the real software development process because Jira Issue Tracking System is a proprietary tracking system that has gained popularity in recent years and offers unique features like the project management system.

[1] Shen, E. Y. T., Lieberman, H., & Davenport, G. (2009, April). What's next?: Emergent storytelling from video collection. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (pp. 809-818). ACM.

[2] Hullman, J., Diakopoulos, N., & Adar, E. (2013). Contextifier: Automatic Generation of Annotated Stock Visualizations. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2707–2716. https://doi.org/10.1145/2470654.2481374

[3] Wang, Q., Li, Z., Fu, S., Cui, W., & Qu, H. (2019). Narvis: Authoring Narrative Slideshows for Introducing Data Visualization Designs. IEEE Transactions on Visualization and Computer Graphics, 25(1), 779–788. https://doi.org/10.1109/TVCG.2018.2865232

[4] Tong, C., Roberts, R., Id, R. B., Id, S. W., Laramee, R. S., Wegba, K., … Ma, X. (2018). Storytelling and Visualization: An Extended Survey, 1–42. https://doi.org/10.3390/info9030065

[5] Ortu, M., Destefanis, G., Adams, B., Murgia, A., Marchesi, M., & Tonelli, R. (2015, October). The JIRA repository dataset: Understanding social aspects of software development. In Proceedings of the 11th international conference on predictive models and data analytics in software engineering (p. 1). ACM.